

**IN THE CLAIMS:**

Please cancel Claims 1-9 and 12-18 without prejudice.

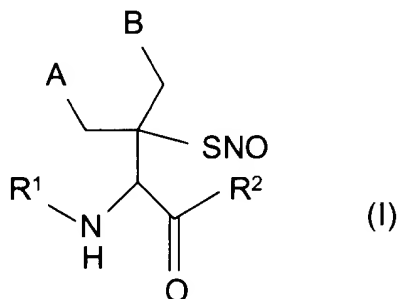
Please add Claims 19-37 as follows:

Claims 1-9 (Cancelled)

Claims 10-11 (Previously Cancelled)

Claims 12-18 (Cancelled)

Claim 19 (New) S-nitrosothiol derivative of penicillamine or glutathione of formula I:



or its pharmaceutically acceptable salt thereof,

in which:

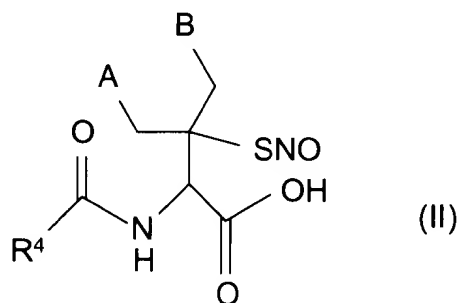
A and B are phenyl groups or together form the group  $-\text{CH}_2\text{-Q-CH}_2-$  constituting a six membered ring in which Q represents oxygen, sulfur, or a group  $\text{N-R}^3$ , in which  $\text{R}^3$  is hydrogen or an alkyl group  $\text{C}_1\text{-C}_4$ ;

$\text{R}^1$  is an acyl group, which may be an aliphatic  $\text{C}_1\text{-C}_5$  acyl group or a glutamic acid acyl group bonded via its gamma carboxyl group;

$\text{R}^2$  is a hydroxyl group or a glycine group bonded via a peptide bond;

with the proviso that if  $R^1$  is an aliphatic acyl group, then  $R^2$  is a hydroxyl group, and if  $R^1$  is a glutamic acid acyl group, then  $R^2$  is a glycine group.

20. (New) The S-nitrosothiol derivative of Claim 19 having the formula:



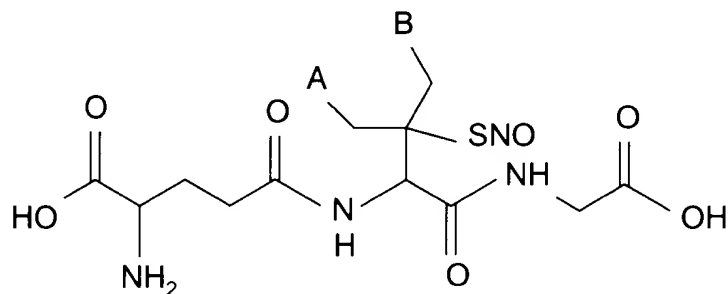
wherein  $R^4$  is a  $C_1$ - $C_4$  alkyl group.

21. (New) The S-nitrosothiol derivative of Claim 19 which is N-acetyl-2-amino-2-[4-(4-S-nitrosomercaptotetrahydropyran)] acetic acid.

22. (New) The S-nitrosothiol derivative of Claim 19 which is N-acetyl-2-amino-2-[4-(4-S-nitrosomercapto-1-methylpiperidin)] acetic acid.

23. (New) The S-nitrosothiol derivative of Claim 19 which is N-acetyl-2-amino-3-benzyl-3-S-nitrosomercapto-4-phenylbutanoic acid.

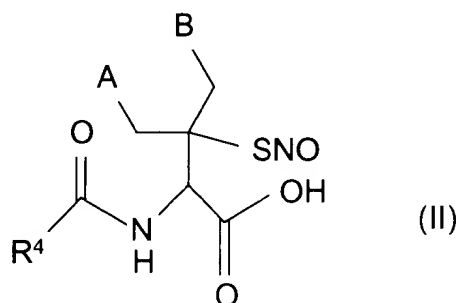
24. (New) S-nitrosothiol of Claim 19, having the following formula III:



(III)

25. (New) The S-nitrosothiol derivative of Claim 19 which is N[N-γ-L-glutamyl-2-amino-2-(4-(4-S-nitrosomercapto) tetrahydropyran))acetyl]glycine.
26. (New) The S-nitrosothiol derivative of Claim 19 which is N[N-γ-L-glutamyl-2-amino-2-(4-(4-S-nitrosomercapto-1-methylpiperidin))acetyl]glycine.
27. (New) The S-nitrosothiol derivative of Claim 19 which is N[N-γ-L-glutamyl-2-amino-3-benzyl-3-(S-nitrosomercapto)-4-phenylbutanoyl]glycine.
28. (New) A method for the treatment of dysfunctions of the circulatory system in a subject in need of such treatment comprising administering thereto a medicament having a platelet aggregating inhibiting-effective amount of the S-nitrosothiol derivative of Claim 19.
29. (New) A pharmaceutical composition comprising a platelet aggregating inhibiting effective amount of the S-nitrosothiol derivatives of Claim 19 and a pharmaceutical carrier therefor.

30. (New) The pharmaceutical composition according to Claim 29 wherein the S-nitrosothiol derivative has the formula



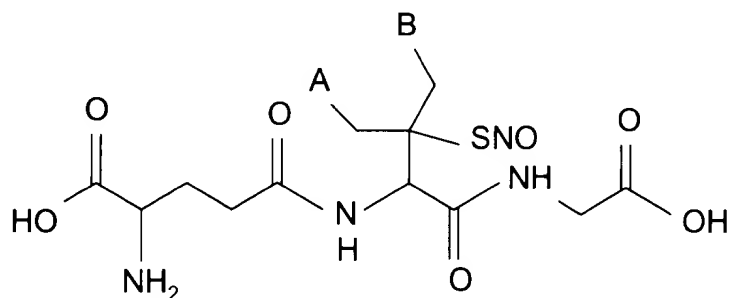
wherein R<sup>4</sup> is a C<sub>1</sub>-C<sub>4</sub> alkyl group.

31. (New) The pharmaceutical composition according to Claim 29 which is N-acetyl-2-amino-2-[4-(4-S-nitrosomercaptotetrahydropyran)] acetic acid.

32. (New) The pharmaceutical composition according to Claim 29 which is N-acetyl-2-amino-2-[4-(4-S-nitrosomercapto-1-methylpiperidin)] acetic acid.

33. (New) The pharmaceutical composition according to Claim 29 which is N-acetyl-2-amino-3-benzyl-3-S-nitrosomercapto-4-phenylbutanoic acid.

34. (New) The pharmaceutical composition according to Claim 29 wherein the S-nitrosothiol derivative has the formula



(III)

35. (New) The pharmaceutical composition according to Claim 29 wherein the S-nitrosothiol derivative is N[N- $\gamma$ -L-glutamyl-2-amino-2-(4-(4-S-nitrosomercapto) tetrahydropyran))acetyl]-glycine.

36. (New) The pharmaceutical composition according to Claim 29 wherein the S-nitrosothiol derivative is N[N- $\gamma$ -L-glutamyl-2-amino-2-(4-(4-S-nitrosomercapto-1-methylpiperidin))acetyl]glycine.

37. (New) The pharmaceutical composition according to Claim 29 wherein the S-nitrosothiol derivative is N[N- $\gamma$ -L-glutamyl-2-amino-3-benzyl-3-(S-nitrosomercapto)-4-phenylbutanoyl]glycine.